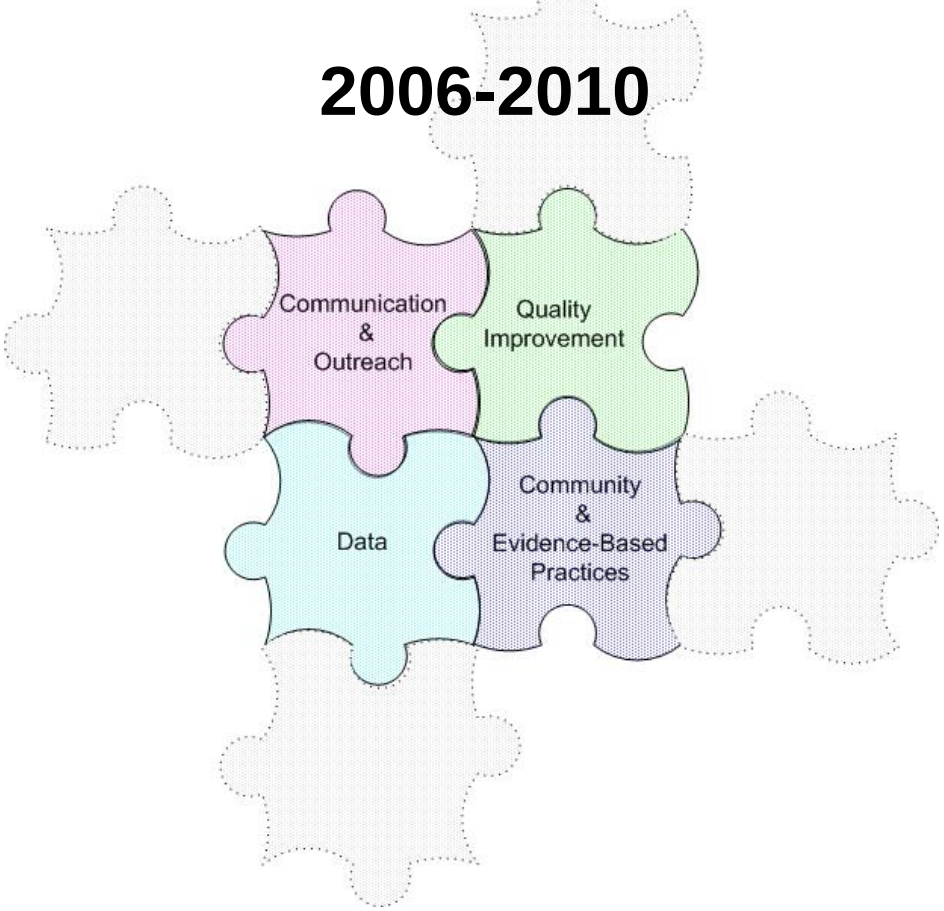
A Framework for Action to Eliminate Racial and Ethnic Disparities in Birth Outcomes

Wisconsin

2006-2010



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Introduction

Elimination of health disparities constitutes an overarching goal of the state health plan, *Healthiest Wisconsin 2010*. Perhaps the most disturbing health disparity in Wisconsin is the persistent high death rate of infants born to African American women. Infants born to African American women in Wisconsin have been 3-4 times more likely to die before their first birthday than infants born to white women. Further, during the past 20 years, virtually no decline has occurred in Wisconsin's African American infant mortality rate. Compared to white infant mortality, disparities also exist among American Indian and Hispanic populations, although disparities are smaller than those of African Americans.

Infant mortality rates (the number of deaths during the first year of life per 1,000 live births in a population group) reflect a tragic loss of life to individuals, families, and the community. The magnitude of infant mortality also reflects broader social and economic conditions that affect maternal and infant health, including factors such as access to high-quality health care, education, poverty, and racism.

In 2004, African American infants in Wisconsin died at the rate of 19.2 per 1,000 – 4.3 times the rate of white Wisconsin infants, which is a disparity ratio as high as any in the nation (for the 40 states reporting African American infant mortality). For the 2002-2004 period, the rate of infant death among Wisconsin American Indians was 9.0 per 1,000, twice that of white infants. Improvements are also needed for Laotian/Hmong infants, where the rate is 8.3 per 1,000, and among Hispanic infants, where the rate is 6.2 per 1,000 live births.

DHFS is sharing *A Framework for Action to Eliminate Racial and Ethnic Disparities in Birth Outcomes*. The focus of this Framework is on better utilization of current resources through improved coordination and collaboration. We are targeting available resources toward communities experiencing the worst outcomes for mothers and babies, and will simultaneously seek new sources of support for the work which needs to be done.

We encourage partners at the local level – in community-based organizations, the faith community, academia, the business community and the public and private health care sectors – to develop or enhance action plans as well. We believe that as each of us critically examines current efforts and considers new opportunities, the possibility of success becomes more realistic.

We recognize that some of the action steps outlined in the Framework are broad statements of intention, based on the best available data. Many of the action strategies have been articulated by experts at the local level. We are pleased to be able to implement some of those recommendations for action, and offer some new ideas as well.

There is substantial, though not sufficient progress already made in several of the action areas. We expect to share specific project plans and timelines for implementation as this effort unfolds.

We welcome your review of the Framework, and your continued partnership in this journey toward healthier births for Wisconsin's racial and ethnic minority communities. As a way of communicating our progress, we have established a website: http://dhfs.wisconsin.gov/healthybirths/. Please visit the website and participate in the public review and comment.

The Impact of Infant Mortality in Wisconsin

In 2004, 420 Wisconsin infants died during the first year of life. Of these, 245 were white, and 125 were African American (Table 1). The white infant mortality rate of 4.5 deaths per 1,000 live births in Wisconsin met the national Healthy People 2010 objective for the first time in 2004. In contrast, infant mortality rates for Wisconsin racial/ethnic minority populations have not met this objective; the African American infant mortality rate was 19.2. The disparity ratio of African American to white infant mortality rates was 4.3, meaning an infant born to an African American woman was 4.3 times more likely to die before reaching its first birthday than an infant born to a white woman. If African American infant mortality were reduced to the white infant mortality level, 96 of the 125 deaths would have been prevented.

Table 1. Number of Infant Deaths and Births by Race/Ethnicity, Wisconsin, 2004[1]

	African American	American Indian	Hispanic	Laotian/ Hmong	White	Other/ Missing	All Race/ Ethnicity
Infant Deaths	125	6	30	9	245	5	420
Births	6,497	1,034	5,915	1,045	54,217	1,423	70,131

Table 2 presents three-year infant mortality rates for the 2002-2004 period. Combining years provides more stability in rates with relatively few events in a single year, such as Laotian/Hmong and American Indian infant deaths. For each racial/ethnic minority group in Wisconsin, the 2002-2004 infant death rate exceeded that of whites. The infant mortality rate of American Indians was 1.8 times greater than the white rate; the rate for Laotian/Hmong was 1.6 times the white rate. In comparison to all groups, the risk of death during the first year of life was greatest for African Americans.

Table 2. Infant Mortality Rates and Disparity Ratios by Race/Ethnicity, Wisconsin, 2002-2004[2]

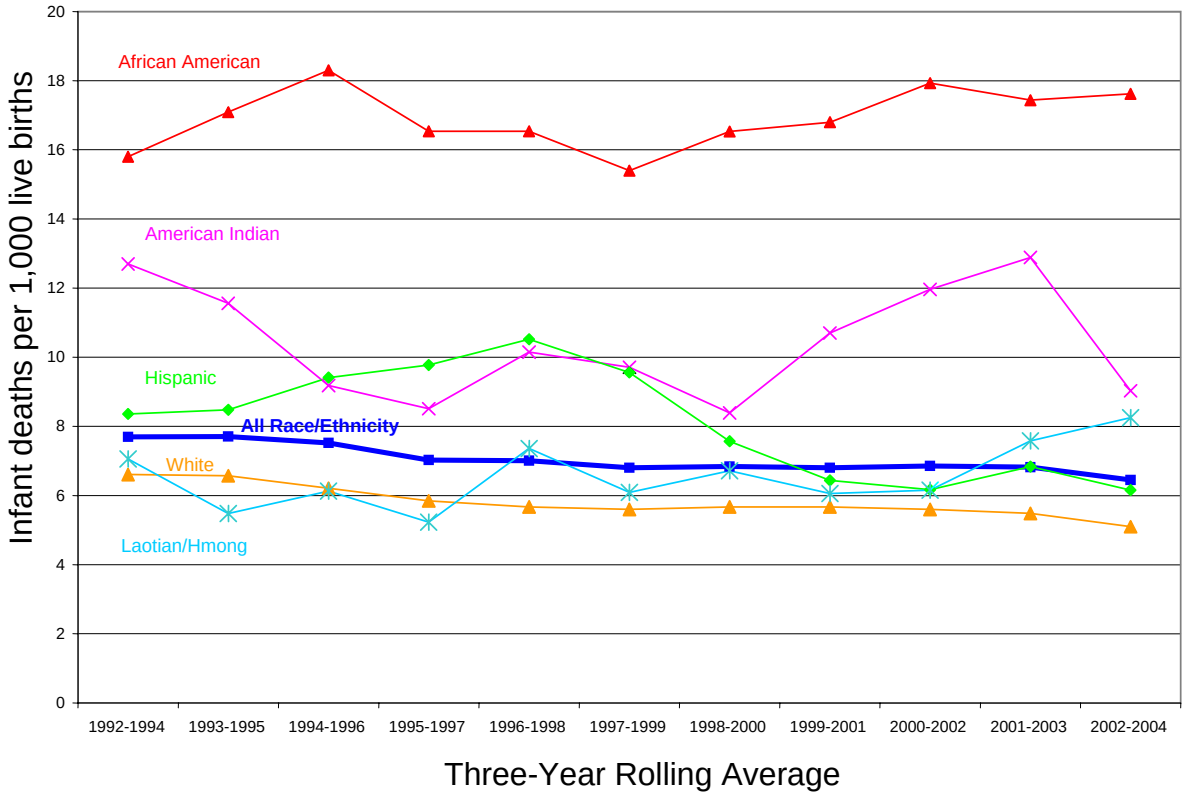
	African American	American Indian	Hispanic	Laotian/ Hmong	White	Other/ Missing	All Race/ Ethnicity
Infant Mortality Rate	17.6	9.0	6.2	8.3	5.1	5.2	6.5
95% Confidence Interval	15.8 - 19.5	5.6 – 12.4	5.0 - 7.3	5.0 - 11.5	4.8 - 5.4	3.0 - 7.5	6.1 - 6.8
Disparity Ratio*	3.5	1.8	1.2	1.6	1.0	1.0	1.3

* The disparity ratio is the infant mortality rate for a specified group divided by the white rate.

Historical Trends Identify Persistent Gaps

Wisconsin's infant mortality rates demonstrate enduring racial and ethnic disparities from 1992-1994 to 2002-2004 (Figure A). Although the overall infant mortality rate declined, these gains did not extend to minority groups. Based on three-year rolling averages, the overall infant mortality rate declined from 7.7 to 6.4 deaths per 1,000 live births. Declines in infant mortality rates also occurred among Hispanics and whites, but not among African American, American Indian, and Laotian/Hmong populations.

Figure A. Infant Mortality Rates by Race/Ethnicity, Wisconsin, 1992-1994 to 2002-2004[3]



Infant Mortality Rank Relative to Other States

Relative to other reporting states and the District of Columbia, Wisconsin's infant mortality ranking has fallen since 1979-1981 (Table 3). In 1979-1981, relative to other ranked states, Wisconsin had the third lowest African American infant mortality rate. For the 2000-2002 period, Wisconsin ranked 40th out of reporting states and the District of Colombia, indicating it had the highest African American infant mortality rate. Since 1979-1981, Wisconsin's rank based on white infant mortality rates has also declined relative to other states, moving from a rank of 5 in 1979-1981 to 21 in 2000-2002. Thus, while Wisconsin's white infant mortality rate declined during the past two decades, improvement did not keep pace with many other states.

Table 3. Wisconsin's Rank Relative to Reporting States Based on Infant Mortality Rates, 1979-81 and 2000-2002

	1979-1981 [4]	2000-2002[5]
African American*	3 (34)	40 (40)
White	5 (51)	21 (50)**

* In 1979-1981, 33 states and the District of Columbia reported African American rates. In 2000-2002, six additional states reported African American rates. The number of reporting states is indicated in parentheses.
** For 2000-2002, the District of Columbia did not report a white infant mortality rate.

Causes of Death

Table 4 shows the proportion of infant deaths due to leading causes for the period 2002-2004. Among African Americans, leading causes included preterm and low birthweight (28.9%); Sudden Infant Death Syndrome or SIDS (13.0%); and congenital malformations/birth defects (12.4%). Among whites, the leading causes were congenital malformations/birth defects (22.1%); preterm and low birthweight (16.6%); and SIDS (9.4%). For several of the leading causes of infant mortality, it is possible to modify the underlying risk factors, such as preterm births, low birthweight, and unsafe sleep practices. Reductions in infant mortality can be achieved through improved access to high-quality health care, educational programs, and outreach interventions.

Table 4. Percent of Infant Deaths Due to Selected Leading Causes, Wisconsin, 2002-2004[6]

	All Race/Ethnicity	African American	White
Perinatal: Disorders related to Preterm Birth and Low Birthweight	20.9%	28.9%	16.6%
Congenital Malformations/Birth Defects	19.9%	12.4%	22.1%
Sudden Infant Death Syndrome (SIDS)	10.0%	13.0%	9.4%
Perinatal: Maternal Complications of Pregnancy	4.9%	5.9%	4.6%
Respiratory Distress of the Newborn	3.3%	3.2%	3.2%
Perinatal: Newborn Complications of Placenta/Cord/Membranes	2.8%	2.1%	3.2%

Selected Maternal Characteristics

Examples of maternal characteristics that affect infant mortality, such as age, education, the trimester that prenatal care is initiated, and smoking status, are presented in Table 5. In every category, the African American infant mortality rate exceeded the white infant mortality rate. Corresponding black/white disparity ratios ranged from 2.3 to 4.0.

Table 5. Infant Mortality Rates for Selected Maternal Characteristics by Race/Ethnicity, 2002-2004[7]

	All Race/Ethnicity	African American	White	Black/White Disparity Ratio
Age				
Less than 20	11.9	21.0	8.7	2.4
20-29 years	6.4	17.1	4.9	3.5
30-39 years	5.1	14.4	4.6	3.1
40 + years	6.8	*	6.3	*
Education				
Less than High School	10.0	19.5	8.3	2.3
High School Graduate	7.4	16.0	6.0	2.7
More than High School	4.6	15.7	4.0	4.0
Trimester Prenatal Care Began				
First	5.9	16.9	4.8	3.5
Second	6.9	14.8	5.3	2.8
Third or None	17.1	31.0	12.8	2.4
Smoking Status				
Smoked	9.3	23.4	7.4	3.2
Did not smoke	5.9	16.3	4.7	3.5

- Inadequate sample for rate calculation

Selected Infant Characteristics

Critical risk factors for an infant death presented in Table 6 include low birthweight (less than 2,500 grams, or about 5.5 pounds) and preterm birth (birth before 37 weeks of gestation). Although the race disparity is less for infants born with very low birthweight (less than 1,500 grams), all very low birthweight infants are at substantial risk. However, a greater proportion of infants born to African American women than those born to white women are low birthweight or preterm. Thus, both the higher rates of infant mortality at low birthweight and the greater proportion of low birthweight infants born to African American women contribute to the disparity in infant mortality. In the period 2002-2004, about 75 percent of African American infant deaths occurred among low birthweight infants compared with two-thirds of white infant deaths.

Table 6. Infant Mortality Rates and Number of Infant Deaths for Selected Infant Characteristics by Race/Ethnicity, 2002-2004[8]

	All Race/ Ethnicity	African American	White	Black/White Disparity Ratio
Birthweight				
Very low (less than 1500g)	273.5 (722)	329.2 (210)	251.1 (419)	1.3
Low (1500g-2499g)	16.5 (191)	20.2 (40)	14.9 (122)	1.4
Normal (2500g and above)	2.1 (417)	5.3 (88)	1.8 (276)	2.9
Gestational Age				
Preterm	39.4 (897)	76.3 (249)	32.0 (533)	2.4
Full term	2.4 (443)	5.6 (89)	2.0 (294)	2.8
Postpartum Stage				
Neonatal (<28 days)	4.4 (913)	11.4 (220)	3.5 (569)	3.3
Postneonatal (28-365 days)	2.1 (432)	6.2 (119)	1.6 (262)	3.8

Summary

Despite declines in Wisconsin's overall infant mortality rate during the past decade, declines did not occur for many racial/ethnic groups, and disparities have persisted. Using the white population as the comparison group, of all minority populations the disparity is greatest among African Americans. Due to declines in the white infant mortality rate and an unchanging African American infant mortality rate, this disparity has increased. Relative to other states, Wisconsin's rank based on African American infant mortality has fallen from among the best rates in the country to the worst. Factors associated with preterm birth and low birthweight constitute the leading cause of death for infants born to African American women. However, regardless of the infant or maternal risk factor, the probability of an infant death is greater for African Americans than for whites.

[1] Wisconsin Department of Health and Family Services, Division of Public Health, Bureau of Health Information and Policy. Wisconsin Interactive Statistics on Health (WISH) data query system, http://dhfs.wisconsin.gov/wish/. Birth Counts Module, accessed 12/07/05. Race/ethnicity is based on self-reported race of the mother. Race groups exclude persons of Hispanic origin; an individual identified as Hispanic may be of any race.

[2] Ibid

[3] Ibid

[4] Kvale, et al. *Wis. Med J.* 2004;103(5):42-47.

[5] NCHS. *Health, United States, 2004. With Chartbook on Trends in the Health of Americans*. Hyattsville, Maryland:2004.

[6] Wisconsin Department of Health and Family Services, Division of Public Health, Bureau of Health Information and Policy. Wisconsin Interactive Statistics on Health (WISH) data query system, http://dhfs.wisconsin.gov/wish/. Birth Counts Module, accessed 12/07/05. Race/ethnicity is based on self-reported race of the mother. Race groups exclude persons of Hispanic origin; an individual identified as Hispanic may be of any race.

[7] Ibid

[8] Ibid

Framework for Action Goals

Communication and Outreach

Goal 1 – Communication and Outreach: Promote statewide awareness of racial and ethnic disparities in birth outcomes; develop communication and outreach strategies that utilize social marketing.

Strategy 1 – Framework: Develop a five-year framework for action for eliminating racial and ethnic disparities in birth outcomes.

Action Steps:

- Engage key stakeholders in the development and ratification of the framework.
- Develop a brand identity to assure sustained visibility and partnership.
- Provide opportunities for periodic evaluation and revisions of the framework.

Strategy 2 – Community Mobilization: Promote community mobilization to eliminate racial and ethnic disparities in birth outcomes.

Action Steps:

- Develop and implement, with consumer participation, a culturally-appropriate awareness and community education campaign that incorporates proven social marketing strategies.
- Involve key stakeholders in creating consistent and shared messages that lead to desired and endorsed behavior change.

Strategy 3 – Key Partner Relationships: Build and improve relationships with key partners.

Action Steps:

- Foster and facilitate effective collaboration among partners.
- Participate with partners in seeking additional public and private funding.

Quality Improvement

<u>Goal 2 – Quality Improvement</u>: Develop and coordinate quality improvement processes for the Department of Health and Family Services (DHFS) programs and services that focus on eliminating racial and ethnic disparities in birth outcomes.

<u>Strategy 1 –Enhanced Coordination:</u> Enhance the coordination among DHFS programs and services at both the state and local level.

Action Steps:

- Establish a Department-wide workgroup; dedicate time for high level staff to lead an outcomes-oriented process in coordination with community partners.
- Leverage resources from the Wiser Choice initiative to secure substance abuse treatment for all pregnant women in need within the central city zip code area of the Milwaukee Comprehensive Home Visiting Project, and identify resources for expansion.
- Leverage resources from the Fetal Alcohol Spectrum Disorder program to develop a statewide social marketing campaign to reduce alcohol abuse during pregnancy.
- Leverage oral health resources to improve periodontal disease prevention, detection, and treatment.
- Integrate My Baby and Me alcohol screening and treatment services with First Breath tobacco-cessation services for pregnant and post-partum women.
- Develop and implement a coordinated funding strategy between the Division of Children and Family Services and the Division of Public Health focusing on teen pregnancy prevention and child abuse prevention, building on Brighter Futures infrastructure and resources.
- Seek additional opportunities for collaboration with other Department programs and regional offices.

<u>Strategy 2 – Improved Assessment, Assurance, and Policy Development</u>: Improve the assessment, assurance, and policy development role in funding selected programs to address the elimination of racial and ethnic disparities in birth outcomes.

Action Steps:

- Promote evidence-based practices by coordinating current DPH funding for teen pregnancy prevention efforts (Abstinence, Maternal and Child Health, and Family Planning) with private sector initiatives.

- Require targeted deliverables for programs serving mothers, children, and families to assure the elimination of racial and ethnic disparities in birth outcomes.

- Review procedures in the Supplemental Nutrition Program for Women, Infants, and Children (WIC) and the Nutrition Education Program to promote early enrollment, expansion of breastfeeding education, and early referral to FoodShare when appropriate.

- Develop an effective coalition with community representatives to reduce exposure to STDs among disparately affected teens.

- Increase HIV testing of all pregnant women through collaboration with relevant professional associations.

<u>Strategy 3 – Improved Access</u>: Develop and implement continuous quality improvement measures to ensure appropriate and timely access to health care.

Action Steps:

- Review policies and procedures for Medicaid eligibility and coverage for pregnant women and infants by engaging key stakeholders and soliciting suggestions for improvements. Implement cost-effective improvements on a statewide basis that enhance the presumptive eligibility and newborn eligibility processes to expedite eligibility determination and Medicaid enrollment.

- Develop a strategy for incorporating eligibility for PE, newborns and the Family Planning Waiver program into ACCESS, the Department's web-based eligibility support services tool, to streamline and simplify processes and increase access through the use of technology.

- Develop a campaign to promote acceptance of the Medicaid temporary card by providers and educate consumers of its value.

- Engage stakeholders in developing a strategy for ensuring that incarcerated pregnant women can access the new BadgerCare prenatal care benefit.

- Develop a pay-for-performance program for healthy birth outcomes.

Community and Evidence-Based Practices

<u>Goal 3 – Community and Evidence-Based Practices</u>: Deploy community and evidence-based practices that eliminate racial and ethnic disparities in birth outcomes, in more places and at greater scale.

<u>Strategy 1 – Consumer Involvement</u>: Involve consumers in the development and implementation of evidence-based, culturally-appropriate practices.

Action Steps:

- Work with community members and popular opinion leaders to foster trust and remove barriers to health care access.
- Leverage minority health grant dollars to fund innovative, local prevention programming.

<u>Strategy 2 – Trusted Gateways</u>: Partner with trusted community-based organizations that serve disparately affected populations to develop, implement, and/or expand evidence-based and community-endorsed programs.

Action Steps:

- Dedicate personnel from the Wisconsin Minority Health Program and the Maternal and Child Health Program to focus on the elimination of racial and ethnic disparities in birth outcomes.
- Expand the First Breath tobacco cessation program to reach pregnant women in counties with high racial and ethnic disparity rates; integrate the My Baby and Me alcohol cessation program in targeted areas with high alcohol co-morbidity.
- Support the continuation of the Milwaukee Fetal and Infant Mortality Review Project and expand FIMR activities in other counties with disparate burden.
- Implement a five-year Milwaukee Comprehensive Home Visiting Project with the City of Milwaukee Health Department.
- Create or improve communication channels among new and existing partners.

<u>Strategy 3 – Policy/System Changes</u>: Identify strategies that will address cultural/linguistic barriers and other constraints associated with poor birth outcomes, including racism, poverty, inadequate education attainment, inadequate employment success and high incarceration rates.

Action Steps:

- Educate business and community leaders, local and state elected officials, and high level state agency leaders regarding disparities in birth outcomes, to promote a shared agenda for action.

- Develop a pilot project with the Department of Workforce Development (DWD), building on the Families Forward Wisconsin Project, to improve maternal education, employment strategies, and fatherhood programs for families in the Milwaukee Comprehensive Home Visiting Project.

- Develop and promote provider education on evidence-based practices that reduce low birthweight and prematurity.

Data

<u>Goal 4 – Data</u>: Monitor statewide and local trends in low birth weight, prematurity, and Suddent Infant Death Syndrome (SIDS); evaluate the effectiveness of interventions to eliminate racial and ethnic disparities in birth outcomes.

<u>Strategy 1 – DHFS Data Workgroup</u>: Establish a data workgroup composed of Department of Health and Family Services (DHFS) staff to provide information and data support to the elimination of racial and ethnic disparities in birth outcomes.

Action Steps:

- Assess data needs, conduct on-going monitoring, and coordinate work with partners.
- Produce and disseminate fact sheets on racial and ethnic disparities in infant mortality and birth outcomes.
- Leverage vital records, hospital discharge and Medicaid data, and other key databases to ensure evidence-based/data-driven decisions and initiatives to increase capacity for data collection and analysis.

<u>Strategy 2 – Collaborative Partner Data Workgroup</u>: Establish a workgroup of collaborative partners from academia, local public health and community-based organizations to address data collection, access, analysis, and dissemination.

Action Steps:

- Collaborate with partners to identify data and research needs.
- Establish Data Sharing Agreements between DHFS and partners.
- Prioritize research and evaluation projects that will further our understanding of how to eliminate racial and ethnic disparities in birth outcomes.
- Identify and implement strategies to secure funding to support research and evaluation of interventions that successfully eliminate racial and ethnic disparities in birth outcomes.

<u>Strategy 3 – Key Program Evaluation</u>: Conduct efficient evaluation of current DHFS programs related to healthy birth outcomes.

Action Steps:

- Evaluate the effectiveness of the Medicaid Prenatal Care Coordination benefit and make recommendations for improvements.

- Evaluate the Milwaukee Comprehensive Home Visiting Project, in conjunction with the City of Milwaukee Health Department and other academic partners.

- Identify other key DHFS programs for evaluation.

<u>Strategy 4 – Dissemination of Information</u>: Develop strategies for the dissemination of knowledge and ongoing progress.

Action Steps:

- Establish an Internet site to enable DHFS information sharing to enhance local capacity.

- Provide presentations at national, state, and local forums to disseminate data to professionals and community members.

- Assure that knowledge is disseminated for the purposes of community health improvement.